

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matters of)	
)	
Consumer Information and)	
Disclosure)	CG Docket No. 09-158
)	
Truth-in-Billing and)	
Billing Format)	CC Docket No. 98-170
)	
IP-Enabled Services)	WC Docket No. 04-36

**QWEST CORPORATION COMMENTS –
CONSUMER INFORMATION AND DISCLOSURE PN, DA 10-670**

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I. INTRODUCTION AND SUMMARY.

Qwest Corporation (Qwest) submits these comments pursuant to the Commission's request for comments on its proposed residential fixed broadband services testing and measurement solution.¹ The Commission recently contracted with a third party, SamKnows Ltd., to measure and publish data on broadband performance based on actual performance of fixed broadband services. The Commission is specifically seeking comment on the methodology SamKnows plans to apply. The methodology is certainly a good starting point for discussion. In these comments, Qwest proposes vital adjustments that should be applied to the SamKnows' methodology or any methodology the Commission ultimately utilizes in regard to broadband performance. Many of these proposed modifications draw upon the recommendations made in the USTelecom/TIA March 29, 2010 *ex parte* letter in this docket which Qwest supported. Qwest would particularly like to emphasize the point raised in that letter that "[d]ue to the

¹ Comment Sought on Residential Fixed Broadband Services Testing and Measurement Solution, Consumer Information and Disclosure Public Notice, CG Docket No. 09-158, CC Docket No. 98-170, WC Docket No. 04-36, DA 10-670, rel. Apr. 20, 2010.

complex, technical issues involved in devising such a solution, we suggest the Commission put out for public comment the testing and measurement methodology *before testing begins*.² Thus, any changes implemented pursuant to this Public Notice should be in place prior to any testing or reporting.

Qwest strongly supports putting more information in the hands of consumers. But posting of raw data, without more, sows the seeds for consumer confusion and/or disengagement which will undermine the broadband deployment goals of the Act. The one thing lacking in the five elements of the SamKnows proposal is the need to make this information available to consumers in a manner in which they can understand, and utilize, the information. For this reason, Qwest proposes an overarching sixth element which will take precedence priority-wise among the elements. This element will identify the categories of information that consumers find useful and that they are able to understand. Once these categories of information are identified, the SamKnows' methodology can be tailored to generate this information. It is vital, however, that the Commission embarks on its National Broadband Plan (NBP) standard setting and performance disclosure initiatives prior to the SamKnows' study to enhance the usability of the information.

In regard to SamKnows' methodology, the selection of a statistically valid diverse sample of panelists is crucial to generating accurate and comprehensive insight into broadband performance. The approach SamKnows proposes risks marginalizing, or overlooking entirely, important factors such as geography, technology, and the variety of consumer profiles in the broadband population. The lack of information also clouds SamKnows' mode of data collection.

² *Ex parte* letter from Danielle Coffey, Telecommunications Industry Association, and Jonathan Banks, United States Telecom Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, CG Docket No. 09-158, CC Docket No. 98-170, and WC Docket No. 04-36 at 1, filed Mar. 29, 2010.

Little is known about the proposed “white box” it intends on using and how transparent to service performance the box is. The Commission should strongly consider use of a third-party auditor to monitor the accuracy of the data.

The NBP invokes favorably the impact of the Environmental Protection Agency’s (EPA) miles-per-gallon (mpg) label in improving fuel economy. If this type of label is the goal of the Commission it needs to narrow the universe of performance information down to the categories of most import and comprehension to the consumer. The information needs to be presented in such a manner that maximizes its usefulness to the consumer.

Qwest also cautions that before any information is placed in the hands of consumers that such information, and the processes used to produce such information, are thoroughly vetted to ensure that the information is both useful and accurate. This is particularly true when the information takes on the guise of having a government seal of approval. When information emanates from trusted and respected sources the reliance people place on such information is at its height. An example from the EPA’s mpg label, which the Commission cited to in its NBP, is illustrative. If a label says the car you are considering purchasing gets 28 mpg on the highway, if you purchase the car and you get 24 mpg you will be disappointed. But as we know, there are many factors that impact the mpg your car actually gets, *i.e.*, traffic, state of the roads, your servicing history, use of the car’s air conditioner, weather, etc. Automobile consumers have become savvy enough that they realize that the mpg on the label may not necessarily translate to what they experience in their vehicle. At the same time, the mpg standards have become more precise such that a consumer should not expect a wide deviation. For these reasons, consumers do not flock to the dealers demanding a refund if the mpg is off by a nominal amount.

The moral of this story is clear -- if the government, or its contractor, reports information regarding a service's speed (download and upload), latency, jitter, and availability it should ensure the accuracy of this information as best as it can because customers will rely upon this information in their decision-making, particularly if they have not become knowledgeable enough about the product to understand that there may be deviations from the standards for reasons outside of the control of the broadband provider. The Commission needs to be wary that its role as a regulator in providing accurate information to consumers does not stray into the realm of endorser of products and/or services.

In these comments, Qwest will explore both the issues of usefulness of the contemplated information to the consumer and accuracy of the information.

II. THE COMMISSION NEEDS TO CREATE A NEW FIRST ELEMENT ADDRESSING THE USABILITY OF THE INFORMATION DISSEMINATED.

While maximizing the information available to consumers is of vital importance not only in the information and communications technology area but in any area, this approach needs to be synchronized with greater education of the consumers. For such a goal to be successful, the effort must be designed based on an understanding of the kinds and formats of information that will be most useful to and manageable by consumers. Simply providing consumers with access to more information may appear to achieve a laudable goal, but it will be of little use in actual practice if typical consumers are not situated to understand the information, or if the volumes and complexities of data are such that they cannot take the time to wade through it, or if access to the information is in a format they do not find manageable or convenient. As discussed further below, the NBP recognized the importance of the usability of the broadband performance information by recommending two corresponding initiatives that will involve the government, industry and consumers in crafting technical standards for broadband and will establish

performance disclosure obligations for providers focused on the information that is relevant to consumers.

As the Commission discovered and reported in its NBP, two of the significant obstacles to broadband adoption are digital literacy and relevance. About 22% of non-adopters cite a digital literacy-related factor as their main barrier. This group includes those who are uncomfortable using computers and those who are “worried about all the bad things that can happen if [they] use the Internet.”³ For these individuals, presumably already intimidated or wary of terms like processing speed and RAM, terms like latency and jitter will not only be completely foreign to them but serve as yet another reason to feel that ignorance of computers is, in fact, bliss. And for those who fear bad things emanating from the Internet, the terminology will only increase their fear that they will not be able to control what information flows from their computers.

The Commission also found that some 19% of non-adopters say they do not think digital content delivered over broadband is compelling enough to justify getting broadband service.⁴ These individuals will find the new categories of data being released not only equally foreign but yet another reason why broadband is irrelevant to their world. The five main elements of the SamKnows proposal do not appear to place any significant emphasis on gaining this understanding and then designing the five elements accordingly. Instead, the five elements appear to define a process by which very technical and complex information is generated to support national policy making efforts, but not to help the average residential consumer make informed decisions by providing information in a manner the consumer could be expected to actually use if given the opportunity.

³ NBP, § 9.1.

⁴ *Id.*

To overcome this problem, the approach should incorporate a sixth element, employed as a new first element, to determine what information typical consumers, in various regions of the country, can understand and manage, and to discover what kinds and formats of access to information consumers will actually respond to and use. As the Commission recommended:

Successful efforts address multiple barriers to adoption simultaneously. They combine financial support with applications and training that make broadband connectivity more relevant for non-adopters. Relevance, in turn, boosts the technology's perceived value and affordability.⁵

By identifying the types and format of information consumers will find useful, the Commission will be able to guard against the information serving as a barrier to additional adoption. The Commission can integrate its SamKnows efforts with the adoption effort by tailoring the information categories SamKnows will focus on with those categories consumers find important.

This additional project element should study whether there exists multiple typical profiles of customer categories (across relevant dimensions, such as geographic regions, income strata, and educational level) that would help direct how the information is presented for each of the major categories identified. Understanding and employing such parameters in the design of the other five main elements will be essential in assuring that the resulting information is usable and then actually used by consumers. The Commission has recognized that these customer categories are important factors in usability of information. As the Commission noted, there is no "one size-fits-all" answer.⁶ The Commission also recognized that some states have shown

⁵ *Id.*

⁶ *Id.*

leadership in digital literacy initiatives.⁷ Residents of these states will likely desire information at a higher quantitative and qualitative level than residents in other regions.

An example of one method for obtaining this understanding, out of many potential methods that should be considered, is customer focus groups, in which alternative types and formats of information can be trialed to determine consumer responsiveness and usefulness. Qwest notes that this additional element will be foundational in determining what the right spread and makeup of the panel members needs to be and what statistical parameters need to be satisfied to achieve accurate representations of provider performance in the variety of regions and conditions in which they operate, as well as the changing nature of such data over time. The Commission has already successfully used focus groups in its study on broadband adoption in low-income communities done in conjunction with the Social Science Research Council.⁸ The Commission should expand on that approach to identify the categories of information that consumers will find useful.

There are two other NBP initiatives that need to be synchronized with the SamKnows project. The first is the recommendation that the Commission operate in sync with the National Institutes of Standards and Technology (NIST) to establish technical broadband measurement standards and methodology. The Commission is also advised to encourage the formation of a partnership of industry and consumer groups to provide input on standards and this methodology.⁹ Because SamKnows will likely embark on testing and reporting prior to the development of the Commission/NIST standards, there is the risk that the SamKnows standards and methodology will become the de facto standards/methodology until the other standards are

⁷ *Id.* § 9.6.

⁸ *Id.* § 9.3.

⁹ *Id.* § 4.1.

developed. The concern is that a third party with no oversight as to methods and procedures may trump the efforts of the government, industry and consumer groups acting in conjunction in setting performance standards.

Additionally, if SamKnows begins reporting its findings without the context of the Commission/NIST standards, the results could be confusing, if not misleading to consumers. For instance, as discussed in the next section, geography could play a large role in broadband performance. A properly set standard should take this into account and provide the consumer with an accurate perspective. But raw results in the absence of standards could provide a very distorted and enduring perspective on broadband performance.

The other initiative is the establishment of performance disclosure requirements by the Commission pursuant to a notice of proposed rulemaking.¹⁰ Again this is another situation where the timing of the SamKnows project could preclude or obscure the development of performance disclosure standards. If SamKnows posts all its findings and consumers can review the findings on a carrier-specific basis a precedent for complete disclosure will be set. First, this will upset the two-tiered disclosure of data contemplated by the NBP. One tier would provide data that a “reasonable consumer” would understand and the other tier would be for the more broadband-savvy consumer. But if SamKnows starts providing data in an ad hoc manner, the less savvy broadband consumer will be overwhelmed by the data and may become confused or just ignore the data altogether. Second, once SamKnows posts a comprehensive set of data it will be hard to rein in the disclosure requirements. The goal of the disclosure requirements is to provide the relevant information to the consumer but reporting of all the data, regardless of relevance, will impede the consumer from focusing on the relevant data. For instance, the Commission talks of

¹⁰ *Id.* § 4.1.

a broadband performance label similar to labels put on food products. If the label is crammed with information it will have little effectiveness.

III. DEVELOPMENT AND RECRUITMENT OF PANEL OF RESPONDENTS: LIMITATIONS IN SAMPLING SELECTION PROCESS OF THE PANEL OF RESPONDENTS RAISES QUESTIONS ABOUT THE ABILITY TO MAKE QUALITATIVE AND QUANTITATIVE ASSESSMENTS.

As the Commission noted in its NBP, collecting better data is only one of the first steps in driving competition.¹¹ It is a crucial one, however, because if any issues arise at this stage it taints all the steps that follow. If the data elicited is flawed and/or incomplete, then the information placed in the hands of consumers is flawed and/or incomplete and the consumer is not able to make better choices. Qwest is concerned that the information provided about the SamKnows plan is incomplete. While it appreciates the efforts of the Commission to provide insight into the contemplated approach, there are still unanswered questions and lingering concerns.

Qwest does have reservations about how SamKnows will generate its broadband panel. Specifically, Qwest is concerned about the ability of the panel to generate relevant information on a granular basis. For instance, the specific profile of panel respondents will depend heavily on the degree to which broadband performance data vary by locale. As the Commission discovered, “the actual performance of broadband service can vary significantly across geographic areas.”¹² Unless this dimension is first understood, it will be impossible to know how many and what characteristics of panel respondents are appropriate and in what locales, in order to support accurate, statistically-sufficient samples in each area. This would seem to be particularly important in light of the need for ongoing updates in the data, given the continually

¹¹ *Id.*

¹² *Id.*

changing nature of broadband networks and alternatives nationwide. While the current proposal includes a process to find a panel that is “representative of the ‘broadband population’ in terms of technology, geography and service level,” the definition of “broadband population” is not clear, and neither is the basis for determining what aspects “technology, geography, and service level” will be applied or how they will be applied. Further, what is “representative” is currently cast in technical terms only and seems to ignore dimensions of consumer preference profiles (e.g., those who prefer higher speeds versus those who prefer lower costs and basic broadband functionality).

One particular concern relates to the fact that the location and number of panelists constitutes the sampling method underlying statistical analyses for comparing data. Specifically, there appears to be no process in the SamKnows’ proposal to define and generate a random sample. Without some form of valid randomization, comparative statistics are meaningless. Instead, the proposal appears to consist of a “purposive” sample, relying on volunteers to come forward, and then on researchers engaging in a non-random selection process that yields a sample that is not defined (thus becoming, itself, a “black box”). A purposive sample, driven by volunteers, attaches its own intrinsic bias.¹³

SamKnows will use social and traditional media as well as Twitter, independent bloggers, and opinion formers. It is not clear what makes someone an “independent blogger” or an “opinion former.” And since many of the screening gates consist of answers to questionnaires it is not clear how this will ensure an adequate cross-sample of users are selected.

The fact that the sample size is only 10,000 creates numerous issues. One would think given the media outlets utilized that there will be a larger number of volunteers soon after the ads

¹³ The situation is akin to recruiting jurors via newspaper advertising as opposed to selecting a jury pool from voting lists.

are run. But first responders to ads share similar characteristics of their own, and if SamKnows does not allow an adequate time period to allow for late responders, the sample will already be skewed. Also there are myriad network architecture arrangements for provision of broadband. There are copper loops, hybrid loops, fiber loops, fiber-to-the-curb, fiber-to-the-home, coaxial cable, satellite, microwave, etc. It is not readily apparent how SamKnows will ensure all these types of network architecture are captured in the sample.

While the approach outlined in the proposal may support a nationwide study, such as done in the U.K. to support policy development, it does not appear to support the granularity and statistical validity necessary to give consumers statistically-accurate, up-to-date information. For example, a consumer desiring to compare choices between DSL and cable in South Minneapolis will not be able to do so accurately, unless the sampling process provides sufficiently large and random samples. Otherwise, how can the consumer trust that their service choices are adequately reflected in the parameters of the study?

Qwest is not suggesting that there is not intrinsic worth in a study of 10,000 users, but it likely will not capture the diversity that is American broadband.¹⁴ Thus, the study may be of more worth as a proof of the concept as opposed to proof of the capabilities of every ISP in America.

IV. DATA COLLECTION AND TESTS: THE GAPS OF INFORMATION ABOUT THE SAMKNOWS METHODOLOGY PRECLUDES QWEST'S ABILITY TO ASSESS THE METHODOLOGY.

The proposed data collection depends heavily on the "white box" attached to the modem. However, the proposal gives no indication of valid tests having been conducted on the box with a variety of router types, to demonstrate that it is truly "transparent" to the service performance it

¹⁴ The United Kingdom, where SamKnows did its initial study, has a more CO-based DSL network architecture.

is measuring. If the white box is not completely and consistently transparent, test results can only be considered suspect. It is important to know the specifics of how the white box interacts with the data flows being measured.

In regard to broadband adoption, the NBP states:

Better measurement is widely recognized as necessary for understanding the costs, benefits and efficiency of different adoption programs. But little progress has been made. More systematic evaluation is required to make the most of the federal government's broadband investment.¹⁵

The NBP goes on to state:

Future federal appropriations for broadband adoption should include specific requirements and funding for third-party evaluation and assessment. Each grant should include funding for program evaluation, with additional funding to conduct in-depth assessments and longitudinal program assessment.¹⁶

The need for an independent assessment applies equally, if not more so, in the context of broadband measurements. Given the vital role that these measurements will play in adoption, literacy, development, and availability assessments, among other things, it is vital that the Commission ensure that the data collected and reported is valid. The best way to do this would be use of a third-party auditor. In instances where reporting obligations are vital such as the Section 271 performance measurements the Commission, or state commissions, have utilized a third-party auditor to ensure the accuracy of the reporting. The Commission should employ a third-party auditor to monitor the work of SamKnows.

V. MAINTAINING CONSUMER PRIVACY.

Qwest supports the principles set forth under this element.

¹⁵ NBP § 9.6, Recommendation 9.12 (footnotes omitted).

¹⁶ *Id.*

VI. DATA ANALYSIS AND PRESENTATION: THE DATA ANALYSIS AND PRESENTATION SHOULD REFLECT THE PRINCIPLES OF THE NEW FIRST ELEMENT PERTAINING TO USABILITY OF THE INFORMATION.

The data elicited by SamKnows needs to be analyzed and presented in an understandable manner and should focus on the information the consumer deems germane. Qwest's experience indicates that the panelist survey outlined on page 5 of the Public Notice will be the most important aspect of data collection. This viewpoint appears to be shared in the NBP, which states:

Consumers' preferences differ depending on how they use their broadband connections and how much they are willing to pay for such use. Some value download speeds more than any other attribute, some value mobility and new converts from dial-up may still even value the simple "always on" connection. A user who values little more than e-mail and browsing news sites has, in principle, many choices -- nearly any broadband access technology will do. But a user who streams high-definition video and enjoys gaming probably requires high download and upload speeds and low latency.¹⁷

The principle involving the panelist survey, along with the cited example from the NBP, applies importantly to the analysis and presentation of data, in the context of Qwest's opening, overall comment above that data presentation and access should be based on an understanding of consumers' preferences and behavior relative to such data. This understanding should be the output of the additional, sixth element that we recommend be added to this approach. This new, introductory element would explore consumers' levels of understanding of different types of data (e.g., whether "latency," "jitter," "availability," "packet loss," "DNS resolution time," etc., really mean anything to consumers) and whether different groupings of consumers need different kinds of data. Also examined would be consumers' preferences for the format, media, and access methods for data presentation, along with whether the average consumer would actually use that access beyond an initial curiosity tour, if even that.

¹⁷ *Id.* § 4.1.

On this point, the NBP again appears to be sensitive, in using the following examples that demonstrate the result of a focused streamlining or simplifying of data presented:

For example, the U.S. Environmental Protection Agency's miles-per-gallon (mpg) label for cars encouraged automakers to improve fuel economy and design. That in turn helped boost average auto mileage in the United States from less than 15 mpg in 1975 to more than 25 mpg in 1985.¹⁸

Note the focus on one simple, understandable piece of data: miles per gallon. While other data is available, this one stood out and was posted clearly for customers to see. Other data about vehicle performance were not as significantly emphasized or standardized. In the case of broadband, the current effort to develop data for consumers needs to focus on what they really need and can understand, and then present it in a way that they will actually use.

VII. FLEXIBLE, CONFIGURABLE AND SCALABLE FRAMEWORK.

Qwest agrees that a flexible, configurable and scalable framework is important, particularly as such would be necessary to respond to the understandings gained about consumer characteristics and preferences.

VIII. CONCLUSION.

Qwest shares the Commission's belief about the importance of information to fueling consumer adoption of broadband. The SamKnows methodology is a good first step in achieving the goal of an educated consumer market for broadband services, but vital modifications, noted

¹⁸ *Id.* § 4.3.

in these comments, need to be made to render the information comprehensible, accurate and useful. Qwest calls for implementation of these modifications.

Respectfully submitted,

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May 4, 2010

CERTIFICATE OF SERVICE

I, Richard Grozier, do hereby certify that I have caused the foregoing **QWEST CORPORATION COMMENTS – CONSUMER INFORMATION AND DISCLOSURE PN, DA 10-670** to be: 1) filed with the FCC via its Electronic Comment Filing System in CG Docket No. 09-158, CC Docket No. 98-170 and WC Docket No. 04-36; and 2) served via email on the FCC's duplicating contractor, Best Copy and Printing, Inc. at fcc@bcpweb.com.

/s/ Richard Grozier

May 4, 2010
